

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. -59. (Cancelled)

60. (Currently Amended) A plasma surface processing apparatus for processing a surface of a material to be processed with a processing gas plasmatized under an electric field, said apparatus having an electrode structure having a gas passage through which said processing gas is passed along a passage direction and for generating said electric field in said gas passage, said electrode structure comprising:

an elongate metallic first electrode body extending in a longitudinal direction orthogonal to said passage direction and having an elongate outer first plasma generating surface extending in said longitudinal direction;

an elongate metallic second electrode body extending in said longitudinal direction and arranged in parallel with said first electrode body in an arranging direction orthogonal to said longitudinal direction and to said gas passage direction, said second electrode body having an elongate outer second plasma generating surface extending in said longitudinal direction and facing said first plasma generating surface in said arranging direction, said electric field being generated between said first and second plasma generating surfaces; and

an elongate dielectric first case body extending in said longitudinal direction in parallel with said first and second electrode bodies, said dielectric first case body being formed a cross section orthogonal to said longitudinal direction into a U-shape so that said first case body has a first opening which is opened toward an open direction of the cruciform directions composed of said gas passage direction and said arranging direction, said first electrode body being received in said dielectric first case body so that said first plasma generating surface is contacted with an inner peripheral surface of said first case body, said second electrode body being disposed outside of said dielectric first case body in said arranging direction without aiming toward said first opening, said gas passage being formed between said dielectric first case body and said second electrode body, an end part on a

side of said first opening of said first case body being protruded in said open direction relative to said first electrode body
a metallic electrode body having a plasma-generating surface; and
an integrally formed dielectric case body which has an opening and an internal space communicated to said opening, said electrode body being received in said internal space through said opening, said plasma-generating surface being closely covered with said dielectric case body as dielectric layer thereof, said dielectric case body being provided with a protrusive end part on a side of said opening thereof, said protrusive end part being protruded relative to said electrode body.

61. (Currently Amended) An electrode structure according to claim 60, further comprising:

a elongate lid, made of a solid dielectric material, extending in said longitudinal direction and for closing said first opening, a[n] lateral end part of said lid covering an end surface of said protruded protrusive end part in a location more forward in [a] said open direction where said protrusive end part is protruded relative to said from said first electrode body.

62. (Currently Amended) ~~A plasma surface processing apparatus for processing a surface of a material to be processed with a processing gas plasmatized under an electric field, said apparatus having an~~ An electrode structure according to claim 60, wherein said electrode structure further comprises~~for generating said electric field, said electrode structure comprising:~~

an elongate dielectric second case body extending in said longitudinal direction and arranged in parallel with said first case body in said arranging direction, said second case body being formed a cross section orthogonal to said longitudinal direction into a U-shape so that said second case body has a second opening which is opened toward an opposite side of said open direction, said gas passage being defined between said first and second case bodies, said second electrode body being received in said second case body so that said second plasma generating surface is contacted with an inner peripheral surface of said second case body, an end part on a side of said second opening of said second case body

being protruded in said opposite side of said open direction relative to said second electrode body

- an elongate metallic first electrode body having a first plasma generating surface;
- ~~an integrally formed dielectric first case body which has a first opening and a first internal space communicated to said first opening, said first electrode body being received in said first internal space through said first opening, said first plasma generating surface being closely covered with said first dielectric case body as dielectric layer thereof, said first dielectric case body being provided with a first protrusive end part on a side of said first opening thereof, said first protrusive end part being protruded relative to said first electrode body;~~
- an elongate metallic second electrode body having a second plasma generating surface and extending in a same direction as said first electrode body; and
- ~~an integrally formed dielectric second case body which has a second opening and a second internal space communicated to said second opening, said second electrode body being received in said second internal space through said second opening, said second plasma generating surface being closely covered with said second dielectric case body as dielectric layer thereof, said second integral dielectric case body being provided with a second protrusive end part on a side of said second opening thereof, said second protrusive end part being protruded relative to said second electrode body;~~
- said first dielectric case body and said second dielectric case body defining a gas passage in between, said gas passage allowing said processing gas to pass therethrough in a direction orthogonal to said direction in which said first electrode body and said second electrode body extend.

63. (Previously Presented) An electrode structure according to claim 62, wherein said first dielectric case body and said second dielectric case body are separately formed.
64. (Previously Presented) An electrode structure according to claim 63, wherein said first dielectric case body has an opposing surface abutted with said second dielectric case body, and said opposing surface is provided with a recess to serve as said gas passage.

65. (Previously Presented) An electrode structure according to claim 62, wherein said first dielectric case body and said second dielectric case body are integrally connected to one another.
66. (Currently Amended) An electrode structure according to claim 62, wherein flow passage sectional area of said gas passage varies along ~~[[a]]~~ said gas passage ~~direction of gas flow~~.
67. (Currently Amended) An electrode structure according to claim 62, wherein said first dielectric case body has a plate defining ~~dividing~~ said gas passage ~~and said first internal space~~, and a thickness of said plate varies along ~~[[a]]~~ said gas passage ~~direction of gas flow in said gas passage~~.
68. (Currently Amended) An electrode structure according to claim 62, wherein a distance between said first electrode body and said second electrode body varies along ~~[[a]]~~ said gas passage ~~direction of gas flow in said gas passage~~.
69. (Currently Amended) An electrode structure according to claim 62, wherein said first dielectric case body is provided with a gas uniformizing passage for dispersing said processing gas uniformly in said longitudinal ~~[[a]]~~ ~~direction in which said first electrode body extends~~ and for introducing said processing gas into said ~~[[flow]]~~ gas passage.